

"Boatanchors" FAQ  
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Why boatanchors?

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Some may question the desire for 80 pound receivers and 100 pound transmitters, both with filaments sitting there getting hot and wasting power in this day of microprocessor based, mega-memored miniaturized transceivers! Although modern radios are extremely good at what they are designed to do, they are about as interesting to operate as a toaster oven. They have no soul.

Additionally, many find a zen-like feeling in taking an old, misused ratty old radio and carefully restoring it back to health. Like cars of the era, boatanchor radios were made to be worked on, modified, and tinkered with. Many think of it as Real Radio in this era where fixing a transceiver is accomplished by boxing it up to send to the manufacturer for a custom VLSI chip replacement. Indeed, a warm soldering iron is almost a requirement for operating a vintage station.

Others claim that boatanchors SOUND better than their silicon descendents, and this is generally true. The audio from a Hammarlund or National receiver, or a Johnson transmitter can sound much better than the 300mW audio coming out of the 2" speaker in the typical transceiver.

Watching the flicker of 807 modulators in a Viking I

as you speak into a D104 mic, is certainly more stirring on a winter night than considering hole and electron flow.

If truth be known, much, if not all of the above although true, are merely justification for the insatiable hunt for more and more of these old boxes, simply because they are just too NEAT to have and operate!

What is a boatanchor radio?

-----

Although there are different interpretations of this term, generally any radio that is "hollow state" or tube-type is considered a boatanchor. Units produced from WWII until the mid 60's are probably the most popular examples of the genre. The origin of the term "boatanchor" becomes self-evident after carrying a DX100 (a classic anchor) to your car and noticing how much longer your arms have become.

Boatanchors may be transmitters or receivers... and no 'anchor station is complete without an assortment of like-aged station accessories like microphones, Transmit/Receive relays, vintage SWR bridges and so on. All of these items are valid subject matter for the boatanchor mailing list.

Where can I find a boatanchor radio?

-----

The best way to find a boatanchor is to let other hams in your area know you are interested in them. Often times I have been given a boatanchor, because the former owner has relegated it to the garage or basement. This is also the cheapest method. When attending a hamfest, ask some of the sellers if they have any for sale. Often times sellers won't bring such stuff, as it is HEAVY and is perceived as not being sellable. Look under the tables, and in the back of the sellers displays for them! While you are under the tables rummage thru the boxes of parts found under there for parts that will come in handy restoring your new-old treasure. Tubes, high voltage caps, vintage microphones and connectors may be found lurking here!

If you are in a hurry (and have money) ads in Electric

Radio magazine (see bibliography), the Ham Trader Yellow Sheets, or your local packet BBS are good places to look. Expect to pay more through these outlets. Also expect to become an expert in UPS shipping rules. Boatanchors are heavy, and often the cost of shipping one can exceed the cost of the entire unit.

What type of Boatanchor should I get?

-----

This is a question that has as many answers as there are individuals. Generally, as a "starter" boatanchor, 50's vintage gear is probably the best way to go. Radios in this era are quite desirable, but often times won't require extensive surgery to get repaired and on the air. A radio from a well-known manufacturer is also a good choice... for receivers, look for Collins, Hammarlund, Hallicrafters, and National are all good radios. In the transmitter space, Collins, E.F. Johnson, and Heathkit (with certain reservations) will do well.

Transmitters with plate modulated AM are the more desirable units. Prices will generally reflect this.

Good "starter" transmitters include, but are not limited to:

Johnson: Ranger I or II/Viking I or II/ Valiant/500

Collins: Any 32V series.

Heath: Apache, DX100A or B

(my AM bias is showing!)

"starter" receivers include:

National 183/183D, HR060 and MANY others

Hallicrafters: Many SX series.

Hammarlund: HQ129, HQ150/160/170/180, Super Pro series, many others.

Collins: any 75A series.

By "starter" radio, I do not mean to indicate the cheapest! Most of these radios would also be on the "best" list. I selected these as they \_are\_ some of the best, and when one is starting anything, it is good to get the BEST stuff available, rather than getting junk and getting discouraged with it. There will be enough to learn (or remember!) without having to compensate for marginal equipment (was that 'Peak the plate and dip the grid, or the other way around??')! Any radio from this list will do the job for some time, and make operating a pleasure.

## Boatanchor Safety

-----

This is a genuine concern! Boatanchor have Real Voltage present in them! Lethal voltages. You will find that capacitors really DO store charge! None of this wimpy 12 volt stuff!

Get back in the habit of discharging any capacitors that are lurking under the hood. Keep one hand in your pocket when working on a hot radio. Be REAL careful and THINK THINK THINK before twiddling with a boatanchor that must be powered up and worked on.

It is SO easy to get used to working on solid state equipment and not worrying about Real Voltages... don't do this!

Also, many older radios are not fused... receivers are good examples of these. I generally replace the line cord (they usually need it anyway) and either put an in-line fuseholder, or some of the Heath-type fused plugs in the radio. Better still, replace the 2-wire plugs with a more modern 3 wire plug. Barring that, ensure that you strap every cabinet with healthy sized cable, to a common station ground. This will prevent \_you\_ from becoming the cable between two pieces of gear at different cabinet potentials.

Fires are nice to have burning on winter evenings but not when they are on top of your operating desk.

Speaking of operating desks, you will become good at carpentry if you spend much time as a boatanchor operator. You will quickly discover that the table you used to operate your tranceiver is way too small, and waaayyyy too wimpy to support a growing boatanchor station!

## Boatanchor Restoration

-----

This subject could easily fill many pages. Below are just some common topics. The Mailing List is a good place to ask about other issues. Remember the radio that stares at you from your bench is old. There are not many around. Take that into consideration as you proceed through the process. If you erase the dial marking on your receiver by cleaning it

with Windex, you likely will not find another at Radio Shack. Take your time and enjoy. The journey to a working boatanchor, like life, is the \_point\_ not a process. You will say less nasty words if you take your time.

[does someone have Jim lockwoods memo about bathing radios?]  
[ I'll add my \$.02 about NOT bathing radios! ]

Some general restoration tips:

- \* Power up old radios gently. Plugging it into the wall and turning it on is not gentle! Bringing it up slowly to operating voltage with a Variac so that electrolytics can "form" is gentle.
- \* Check fuses before powerup. Many 'anchors will have the wrong value fuse in it. Checking the fuse before purchase is a good thing to do too. If it's open, you at least know what you are getting into.
- \* Don't trust that the tubes that are in the sockets are the correct tubes. Check them against the schematic. If you don't have a manual (and even if you do) note which socket the tube came from so that you can replace them correctly.
- \* Don't clean tubes with water. The marking on the glass will likely come off with one good swipe of a water dampened cloth.
- \* Assume many electrolytic and paper caps are bad. Check them.
- \* Check high resistance, and high wattage resistors for correct value.
- \* Nifty tools to have are flux brushes, for cleaning nooks and crannys. Windex is nice for cleaning chassis. Qtips are good to have too.
- \* NEVER clean dial markers or drums. If you do, assume that they will wipe away never to be seen again. You WILL say bad words if this happens!
- \* WD40 or Scotts Liquid Gold (my favorite) applied to a clean wrinkle finish will do a great job of restoring the lustre. Works well for knobs too!

\* Never use WD40 or Scotts Liquid Gold on anything until you have tried it on a non-visible part of the cabinet to make sure it won't dissolve anything.

[ ----- help me out here... need more 1 liners and general tips-----]

Where do I get parts? (or "aren't tubes hard to find?")  
-----

You will need parts to keep or get a boatanchor on the air. Remember that even 50's vintage radios are 40 years old.

Fortunately, hams are notorious packrats and parts surprisingly abound, for old gear, particularly at hamfests (and in the boxes under the table as mentioned earlier). Word of mouth once again will work wonders at getting tubes, high voltage caps, and the like shoved in your direction. Beware that this is an addiction, and boatanchor radios, parts, and periodicals will soon overrun all available space. Trust me.

If you are in a hurry, or need to get a radio working before your hoard of tubes and parts gets established the list below, taken originally from the ARRL server may be of help.

>-----<

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> American Radio Relay League, 225 Main St., Newington, CT 06111  
> (mwilson@arrl.org).  
>

> This ARRL Technical Information Service handout has been derived  
> >from the June 1992 QST "Lab Notes" column. Information has been  
> added to keep it current. You should also periodically check the  
> ham-classified section of ham and electronic publications.  
>  
> How To Locate Manuals and Documentation  
>  
> "Excellent rig. Needs a little work." How many times have you  
> passed up a good deal because you were certain you'd never find  
> the service information? How often have you sent your rig to the  
> factory for a bug that you could have fixed if you had the  
> documentation? Mike Gruber, WA1SVF, one of our ARRL Laboratory  
> Engineers, has searched high and low to find sources for service  
> manuals and other useful information. In this month's column he  
> gives you his results.--WB8IMY  
>  
> Q: Why do I need documentation for my radio equipment?  
>  
> A: Unless you're an electronics genius, proper documentation is  
> often essential to the repair or restoration of any radio  
> equipment. Even a simple schematic can save hours of time that  
> would be wasted otherwise.  
>  
> Q: Okay, but is documentation readily available--even for my  
> antique receiver?  
>  
> A: Believe it or not, there is a good chance that documentation  
> still exists for almost any radio you're likely to encounter. Your  
> success in finding it, however, depends on knowing what type of  
> documentation might be available for your particular piece of  
> equipment.  
>  
> Q: What types of documentation should I be looking for? Where can  
> I find them?  
>  
> A: Let's save the names and addresses for later and begin by  
> taking a look at the different types of equipment documentation  
> available. There are several:  
>  
> Owner's Manuals: An owner's manual is supplied with the unit at  
> the time of purchase. It's intended primarily as an instruction  
> manual for the owner. It may not contain a schematic and service  
> data is usually minimal. Although it's better than nothing, an  
> owner's manual leaves quite a bit to be desired should a repair or  
> alignment be required.  
>  
> Manufacturer's Service Manuals: Service manuals are usually sold  
> by the manufacturer. They contain vital repair, service and

> alignment data. Most manufacturers supply service manuals for  
> their products, although some may not provide manuals for obsolete  
> equipment. If you're working with old equipment, it's possible  
> that the manufacturer may have gone out of business. Keep this in  
> mind the next time you purchase a new rig. Obtaining a service  
> manual will take a little extra effort, but you'll be making a  
> worthwhile investment in the future of your equipment.

>

> Third-Party Service Documentation: This type of documentation is  
> is published by companies other than the manufacturer. It's  
> available in several varieties from basic schematics to complete  
> service manuals. While modern Amateur Radio gear is usually  
> excluded, third-party documentation offers a wealth of information  
> on antique receivers and modern consumer electronics.

>

> Q: Wait a minute. You mean that there are companies that publish  
> and sell service data for another company's products?

>

> A: Certainly! Some of the most noteworthy publishers--past and  
> present--include:

>

> Howard W. Sams & Company Photofacts: Sams started publishing  
> Photofacts in 1946 with only 12 employees. Today Photofacts are  
> accepted as the standard for accuracy. Complete chassis  
> photographs are included and each component is clearly labeled.

>

> Alignment procedures and normal voltage readings are always  
> provided. The extensive Photofacts library does not include modern  
> amateur equipment, but you'll find service data for some of the  
> classic shortwave receivers made by companies such as Hammarlund  
> and Hallicrafters.

>

> Photofacts are sold in numbered folders and volumes. To obtain the  
> correct Photofact, you must find the reference number for your  
> particular piece of equipment in the Photofact Index.

>

> There is an interesting sidenote to the Photofacts story. Sams  
> creates Photofacts from actual product samples. Instead of using  
> the manufacturer's schematics, the circuits are analyzed and  
> traced by Sams technicians!

>

> John F. Rider Perpetual Troubleshooters Manuals: "Rider's," as  
> this series is commonly known, was first published in 1930 and  
> covered radios back to 1926. The first numbered volume, however,  
> appeared in 1933. New volumes were published at a rate of about  
> one per year until the last one, volume 23, appeared in 1953.  
> (Rider's for TVs, however, went from 1948 to 1957, volumes 1  
> through 18.)



>  
> Rider's is indexed by a system that is very similar to the  
> Photofacts. Several index volumes were published, such as volumes  
> 1 to 7, 1 to 10, 1 to 15, 16 to 22 and 23 only. Unlike Photofacts,  
> however, Rider used service data provided by the manufacturers.  
>  
> RCA Victor Service Data Books, commonly called "Redbooks." These  
> cover RCA receivers manufactured from 1923 to 1950. The first  
> volume covered receivers from 1923 to 1928. A new volume was  
> published each year until 1950.  
>  
> Supreme Manuals: Compiled by M. N. Beitman, these first appeared  
> about 1930 and covered radios made as early as 1926. One volume  
> per year was published until the company went out of business in  
> the 1950s. These generally contain only schematics; Riders and  
> Photofacts are far more complete.  
>  
> Hugo Gernsback's Official Radio Service Manuals: Six volumes were  
> published from 1929 to 1936.  
>  
> Mallory Radio Service Encyclopedia: First published in the early  
> '30s, the Mallory Encyclopedias contained a very complete listing  
> of radios by manufacturer and model number. In addition, an exact  
> tube complement was given for each product. This information can  
> be very useful if you are seeking service data for an old radio  
> with an unknown model number.  
>  
> Q: Speaking of tubes, what about vacuum tube data? Is that kind of  
> information still available?  
>  
> A: It sure is! Data for Eimac tubes, frequently found in amateur  
> amplifiers and other high-power RF applications, is currently  
> available from the manufacturer. Transmitting tube data can also  
> be found in the ARRL Handbook; look for it in Chapter 35 if you  
> have a recent edition. Data books for other tube types, such as  
> receiving tubes, have been published by several companies. Most of  
> these data books are no longer in print. Copies, reprints and even  
> old originals can still be obtained if you know where to look. Two  
> of the most popular data books for tubes are:  
>  
> RCA Tube Manuals: These are probably the most common tube manuals  
> -- especially for receiving tubes. Separate manuals were also  
> published for transmitting, special purpose and industrial tubes.  
> These manuals first appeared in the 1930s and were frequently  
> updated.  
>  
> General Electric Essential Characteristics Tube  
> Data Books: These are similar to the RCA Manuals.

>  
> Tube substitution guides have also been published by Sams and John  
> F. Rider.

>  
> Q: Now that I know what I'm looking for, where can I find the  
> documentation?

>  
> A: If you prefer the manufacturer's service manual, start by  
> contacting the manufacturer directly. If the manufacturer is out  
> of business, or no longer supplies the manual you need, you have  
> other options. For example, try obtaining a copy from a manual-  
> supply company.

>  
> If you're working with military gear, manual-supply companies are  
> also good sources. And, some military equipment manuals can still  
> be obtained from the government. (More about that later.)

>  
> If you think a Photofact or Rider might be available based on the  
> age and type of equipment involved, check with your local library.  
> Many city and university libraries have them and will let you make  
> photocopies provided that no copyright laws are violated.

>  
> If your local library can't help you, try one of the "schematic  
> services" that cater to antique radio buffs. Their prices are  
> generally quite reasonable. Don't forget to check the hamfest flea  
> markets and yard sales. Service information can turn up in the  
> most unusual places!

>  
> For a difficult case, you might try a classified ad in QST. A  
> classified ad in a publication that specializes in the type of  
> equipment involved (such as Electric Radio Magazine\1/ or Antique  
> Radio Classified\2/ for surplus or antique rigs) may be very  
> effective.

>  
> ADDRESSES

>  
> Q: Come to think of it, I have several radios that could be put to  
> good use--if they were working! How about those addresses you  
> promised?

>  
> A: Here they are. Good luck with your projects!

>  
> Alinco Electronics, Inc  
> 438 Amapola Ave  
> Suite 130  
> Torrance, CA 90501  
> tel 310-618-8616  
> Supplies Alinco manuals only.

>  
> ---  
>  
> Amateur Wholesale Electronics  
> PO Box 224  
> 1040 Industrial Dr  
> Watkinsville, GA 30677  
> tel 404-769-8706 (technical service and orders)  
> Manuals and replacement parts for Azden Radios.  
>  
> ---  
>  
> Antique Audio  
> 41560 Schoolcraft  
> Plymouth, MI 48170  
>  
> Older factory manuals for RCA, Zenith (including Transoceanics)  
> and several others. Riders volumes 1 through 22, Sams Photofacts 1  
> through 600, Beitman's volumes 1 through 10 and Sams Transistor  
> Service Manuals volumes 1 through 90. The price is \$5 per  
> schematic up to 8 pages. Fifty cents for each additional page.  
> Written inquiries for schematics preferred.  
>  
> ---  
> Antique Electronic Supply  
> 6221 South Maple Ave  
> Tempe, AZ 85283  
> tel 602-820-5411  
>  
> Antique Electronic Supply supplies pre-1960 service manuals for  
> many electronic products, including communications receivers. The  
> cost is \$4.50 each. A catalog of antique radio parts and books is  
> also available. They offer reprints of some older service manuals,  
> tube manuals, a tube substitution guidebook and even a ballast  
> tube manual. [LOTS of tubes!! /john]  
>  
> ---  
> Ardco Electronics  
> PO Box 95  
> Berwyn, IL 60402  
>  
> Manuals for 95% of the Hallicrafters product line. The company was  
> founded by Anthony Dambrauskas, the Hallicrafters service manager,  
> when Hallicrafters went out of business in 1978. Today, the  
> business is being carried on by his son Robert. Manuals range in  
> price from \$7 to \$20.  
>  
> ---

> Brock Publications  
> PO Box 5004  
> Oceanside, CA 92052  
>  
> Manuals for for all amateur equipment sold by Swan Electronics.  
> Also stocks manuals for Cubic Communications, Astro and Siltronix  
> products. Brock Publications is a home business owned by Grace  
> Brock who retired from Swan Electronics/ Cubic Communications in  
> 1990.  
>  
> ---  
> Cardwell Condenser Corporation  
> 80 East Montauk Highway  
> Lindenhurst, NY 11757  
> tel 516-957-7200  
> FAX 516-957-7203  
>  
> Manuals for Hammarlund equipment. In addition, they also have a  
> limited supply of components for Hammarlund receivers and transmitters.  
> They also manufacture roller inductors and variable capacitors.  
>  
> ---  
> Center For Legislative Archives  
> National Archives  
> Washington, DC 20408  
> tel 202-501-5350  
>  
> (Record Group 287) US Army Technical Manuals for radio equipment  
> manufactured from 1940 to 1979. Photocopies can be obtained at a  
> cost of 25 cents per page and a \$6 minimum order. A "Reproduction  
> Service Order" must first be completed by the National Archives to  
> determine the cost of the specific manual you desire. The manual  
> on this form must be identified by its proper Army Technical  
> Manual number. If this number is not known, contact your nearest  
> US Government Depository Library for assistance. (These are  
> usually the main public libraries in large and medium-sized  
> cities.) A booklet entitled Indexes and Lists to Army Technical  
> and Administrative Publications 1940-1979; The National Archives  
> Microfilm Publications Pamphlet Describing M1641, also available  
> >from the Archives, describes this procedure.  
>  
> ---  
> Dean K Kidd, W7TYR  
> 27270 SW Ladd Hill Rd  
> Sherwood, OR 97140  
> tel 503-625-7363  
>  
> Manuals and data for older Tektronix test equipment.  
>

> ---  
> Eico Electronics Instrument Co, Inc  
> 363 Merrick Rd  
> Lynbrook, NY 11563  
> tel 516-599-5744  
>  
> Eico manuals for the last 25 years. Calls are accepted on Monday,  
> Wednesday and Thursday from 8:30 AM to 2:30 PM Eastern time.  
>  
> ---  
> Fair Radio Sales Co, Inc  
> 1016 East Eureka  
> PO Box 1105  
> Lima, OH 45802  
> tel 419-223-2196  
>  
> Manuals for surplus equipment. Also some Tektronix manuals and  
> vacuum tube data. Catalog available.  
>  
> ---  
> Hi-Manuals  
> PO Box 802  
> Council Bluffs, IA 51502  
>  
> Extensive collection of manuals from the mid-30s to the 70s.  
> Amateur Radio equipment is included. You must order from a current  
> catalog and "dropped list." The cost is \$3 for both. Many Heathkit  
> manuals in stock. They also supply vacuum tube data from the RCA  
> Receiving and Air Cooled Transmitting Tube manuals and the Rider  
> #35 Tube Substitution Guide. The cost is \$5 per tube plus a  
> business-size SASE. Your check will be returned if the tube data  
> is not available. Hi-Manuals cannot accommodate technical  
> correspondence, quote requests or telephone calls.  
>  
> ---  
> Howard W. Sams & Co  
> 2647 Waterfront Parkway East Dr  
> Indianapolis, IN 46214-2041  
> tel 800-428-7267  
> tel 800-428-5331  
>  
> You can order Sams Photofacts through your local distributor  
> (saves postage and handling costs), by mail or by phone. Sams  
> covers most consumer electronic items manufactured since 1945. A  
> photocopy service for manufacturer's manuals and Rider's data is  
> also available.  
>  
> ---

> ICOM America, Inc  
> 2380 116th Ave NE  
> PO Box C-90029  
> Bellevue, WA 98009-9029  
> tel 206-454-7619  
>  
> Manuals and parts for ICOM products. Call for prices. Most service  
> manuals cost around \$25 for base and mobile units; \$20 for hand-  
> held units.  
>  
> ---  
> Kenwood (East Coast)  
> East Coast Transistor Parts, Inc  
> 2 Marlborough Rd  
> W Hempstead, NY 11552  
> tel 800-637-0388 (orders only)  
>  
> Kenwood (West Coast)  
> Pacific Coast Parts Distributors, Inc  
> 15024 Staff Ct  
> Gardena, CA 90248  
> tel 800-421-5080 (Outside CA)  
> 800-262-1312 (CA only)  
>  
> Kenwood product manuals only  
>  
> ---  
> Japan Radio Company  
>  
> Service manuals are available from JRC dealers. The three  
> companies likely to have JRC manuals in stock are:  
>  
> Electronic Equipment Bank  
> 323 Mill Street NE  
> Vienna, VA 22180  
> tel 800-368-3270  
>  
> Gilfer Shortwave  
> 52 Park Ave  
> Park Ridge, NJ 07656  
> tel 800-445-3371  
>  
> Universal Shortwave  
> 6830 Americana Parkway  
> Reynoldsburg, OH 43068  
> tel 800-431-3939  
>  
> ---

> Jim Farago  
> 4017 42 Ave South  
> Minneapolis, MN 55406-3528  
>  
> A complete set of Riders, Volumes 1 through 23, covering radios  
> >from 1924 to 1954. The cost is \$3 per copy plus SASE. The customer  
> must provide the unit name, brand name and model number.  
>  
> ---  
> Land Air Communications  
> 95-15 108th Street  
> Richmond Hill, NY 11419  
> tel 718-847-3090  
>  
> Authorized dealer for Kenwood, ICOM and Yaesu manuals. Also  
> carries Collins, Johnson, Hallicrafters, National and other  
> manuals. Can provide schematics on most equipment dating back to  
> 1945.  
>  
> ---  
> Musty Manuals  
> HamHeaven Communication Corp  
> 645 Wheeling Rd  
> Wheeling, IL 60090  
> tel 708-634-6467  
>  
> An extensive collection of owners manuals, service and maintenance  
> manuals, catalogs, magazines and other technical facts on all  
> types of early and late model radio equipment--including ham gear.  
> Manuals come with updates or articles, product reviews and other  
> tidbits of information. Catalog available.  
>  
> ---  
> MECCA  
> 1132 Conway Dr  
> Newark, OH 43055  
> tel 614-522-4944  
>  
> Used manuals for test equipment, amateur equipment and early  
> receivers. Prices range from \$5 to \$35. Send an SASE with your  
> request for price and availability.  
>  
> ---  
> Olde Tyme Radio Company  
> Suite 317  
> 2445 Lyttonsville Road  
> Silver Spring, MD 20910  
> tel 301-585-8776

> Some RCA Tube Manuals and Riders for sale. Catalog available.  
>  
> ---  
> Puett Electronics  
> PO Box 28572  
> Dallas, TX 75228  
> tel 214-321-0927 or 214-327-8721  
>  
> Schematic diagrams "for nearly any radio receiver." Cost is \$5  
> with manufacturer and model number; \$15 plus drawing and  
> description if the manufacturer or model number is unknown.  
> Reproduction manuals, Rider's indexes, RCA Vacuum Tube Manuals,  
> and many other service/instruction manuals for classic radios and  
> related equipment are available. Some amateur equipment manuals  
> including Collins. Test equipment manuals include Hewlett Packard,  
> Tektronix, Hickock and others. Also supplies recordings of old  
> radio shows as well as tubes and other antique radio components.  
> Catalog available.  
>  
> ---  
> Radio/TV/Ham Schematics  
> Alton H. Bowman  
> 4172 East Ave, RD 2  
> Canandaigua, NY 14424  
>  
> A large collection of manuals and schematics for Amateur Radio  
> equipment and other electronic products from 1920 to 1970--many  
> unusual. Welcomes requests for odd-ball material with and without  
> model numbers or labels. Prices are \$5 for schematics and \$7.50 to  
> \$10 for manuals. An SASE is appreciated. Alton emphasizes that  
> this service is his hobby and not a business.  
>  
> ---  
> R. L. Drake Company  
> 230 Industrial Drive  
> Franklin, OH 45005  
> tel 513-746-6990  
> Drake product manuals only.  
>  
> ---  
> Robot Research Inc  
> 5636 Ruffin Rd  
> San Diego, CA 92123  
> tel 619-279-9430  
> Robot manuals only.  
>  
> ---  
> Slep Electronics Co



> PO Box 100  
> Otto, NC 28763-0100  
> tel 704-524-7519  
>  
> Operation and service manuals; schematic service for old and new  
> amateur radios, commercial and military surplus test equipment,  
> commercial and surplus military radios, antique radios and  
> equipment manuals. Catalog not available due to large stock. Send  
> an SASE for price and availability. Include make and model of each  
> unit.  
>  
> ---  
> Sony Publications  
> PO Box 20407  
> Kansas City, MO 64195  
> tel 816-891-7550, extension 33 (Customer Service)  
> Manuals for Sony shortwave receivers and other products.  
>  
> ---  
> Steinmetz Electronics  
> 7519 Maplewood Ave  
> Hammond, IN 46324  
> tel 219-931-9316  
>  
> Schematic copies from a complete set of Rider's and Beitman books,  
> some older manufacturer's manuals (consumer radios only) and Sams  
> Photofacts. The cost is \$3 for the first schematic copy, \$2.50 for  
> the second and \$1.50 for each additional copy. Include an extra  
> dollar for research if the model number is unknown (SASE  
> preferred). Also carries vacuum tubes and other parts. Catalog  
> available.  
>  
> ---  
> Surplus Sales of Nebraska  
> 1502 Jones St  
> Omaha, NE 68102  
> tel 402-346-4750  
>  
> Stocks a complete line of manuals for Collins amateur equipment  
> and partial collection of commercial equipment. Call or send an  
> SASE for price and availability. Collins parts are also available.  
>  
> ---  
> Ten-Tec, Inc  
> PO Box 8010  
> Sevierville, TN 37864  
> tel 800-833-7373  
>

> Manuals for Ten-Tec products only. Most older manuals are  
> available and they will make photocopies. Call or write for  
> specifics.  
>  
> ---  
> US Army Military History Institute  
> Carlisle Barracks, PA 17013-5008  
> tel 717-245-3611  
>  
> Technical manuals for military radio equipment. If possible,  
> include the manual number with your request. If this is unknown,  
> include a complete description of the equipment including the  
> model name, model numbers and the time period in which the  
> equipment was in use, if known. Once a specific manual is  
> identified, it may be obtained in one of two ways. If the  
> Institute possess three or more copies, one may be borrowed through  
> interlibrary loan procedures. This process must be initiated at  
> the your local library. Alternately, photocopies can be purchased.  
> The minimum cost is \$6 for up to ten pages. Each additional page  
> is 25 cents. Each patron is allowed up to 300 pages per calendar  
> year. Selected bibliographies of Institute holdings are available  
> through interlibrary loan.  
>  
> ---  
> Varian Associates, Inc  
> 301 Industrial Way  
> San Carlos, CA 94070-2682  
> tel 800-432-4422  
>  
> EIMAC tube data for tubes from 1-kW to 1.5-kW plate dissipation  
> including all glass-envelope tubes. 200-watt, 800-watt and larger  
> tubes are manufactured in Salt Lake City, Utah. You can use the  
> telephone number shown above to access either plant for data on  
> any EIMAC tube.  
>  
> ---  
> VISTA Technology Inc  
> 3041 Rising Springs Ct  
> Bellbrook OH 45305  
> tel 513-426-6700  
>  
> Newly published manuals for selected models of Rockwell/Collins  
> Amateur Radio equipment. Authorized by Rockwell International.  
>  
> ---  
> Western Nebraska Electronics  
> HC-84, Box 1  
> Potter, NE 69156

> tel 308-879-4552  
>  
> A complete collection of Collins manuals. The cost is \$12.50 for a  
> reprint copy, or \$35 for a printed copy. Also carries a large  
> supply of Collins parts.  
>  
> ---  
> Yaesu USA  
> 17210 Edwards Rd  
> Cerritos, CA 90701  
> tel 310-404-2700  
> Owners and service manuals for Yaesu products. Also sells  
> components.  
>  
> ---Notes: \1/Published monthly by Barry Wiseman, N6CSW, 4 Aspen  
> Pl, Durango, CO 81301.  
>  
> \2/Published monthly by John Terrey, 498 Cross St, PO Box 2,  
> Carlisle, MA 01741, tel 508-371-0512.  
>

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\* Where can I find more information?  
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Well, a good place to start is the boatanchors mailing list!  
There are quite a few people with quite a few radios here,  
and questions are always welcome. Ask away!

Alternate sources of information:

\* Electric Radio magazine.

Highly recommended! \_The\_ periodical for boatanchor operations.  
Whether you are a ham or SWL, or restorer, there is something  
in here for you. The classifieds alone are worth the price  
of admission. Very professionally produced. Monthly.

Electric Radio Magazine  
POB 57  
Hesperus, CO.

\* Antique Wireless Association.

Although a mixture of general old radio lore, and  
communications gear, there is enough good stuff in here  
to justify the price of \$10 a year. Very nicely produced  
and published! Quarterly.

[Address]

\* AM Press Exchange

The "original" AM and boatanchor publication. Has been rather slim in content of late, but interesting to get if you already get E. Radio. Irregularly.

Don Chester-K4KYV  
[address/cost?]

Where Do Hams Operate Boatanchors?  
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On CW you are likely to hear boatanchors lurking anywhere. There are probably more CW boatanchors in operation than anything else.

On AM the following frequencies frequently have AM activity, band conditions and seasonal variations withstanding:

3870-3890 Khz  
7290-7300 Khz  
14.286 Mhz  
21.4-21.45 Mhz  
29.0-29.2 Mhz

What are Typical Boatanchors and Prices?  
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This is a difficult one, as prices can vary from free to many hundreds of dollars. What follows is a list of popular radios and prices one would expect to see in the Electric Radio classifieds.

Transmitters: Collins 32V Series \$175-\$400  
(32V1,2 and 3)

EF Johnson Ranger \$90-\$175  
Viking I \$75-\$150  
Viking II \$60-\$150  
Valiant I,II \$150-\$300  
Viking 500 \$400-\$700

Heath DX100 \$40-\$150 \*  
Apache \$50-\$150 \*

\* - Kits. Price should vary widely depending on how  
it was assembled.

Receivers: Collins 75A Series \$125-\$600  
(75A1, 2,3 and 4)

National HR060	\$175-\$350
National NC183D	\$100-\$175

Hallicrafters  
[someone help me here with a few models/prices?]

Hammarlund HQ129	\$60-\$150
HQ150	\$75-\$150
HQ160	\$90-\$175
HQ170	\$100-\$175
HQ180	\$150-\$250

Epilog

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Dont look as boatanchors as an investment. Get a real grimy specimen and clean and fix, and coax it back to life. Turn in on with the rest of the room lights turned off. As it warms up look into the insides and see the orange glow from the filaments and the purple fire from the 866's. Watch the giant S-meter come to life, and the dials emit that soft light, framed by your carefully cleaned and waxed cabinet. Rotate the knobs that are of sufficient size and layout to permit easy, flywheel smooth adjustment.

Maybe tune to the BBC on your NC183.... watch the S-meter climb as the full audio comes out from the 6 watt output stage as you crank back the RF gain. Fiddle with a few more knobs (boatanchor operation does not need to be a passive experience) to get it set just the way you want it.

Then you'll know why boatanchors are such pleasant things to own. Like mine, your transceiver may become a very expensive frequency counter and RF generator used to align the 'Real Radios'.

----- Cut here -----